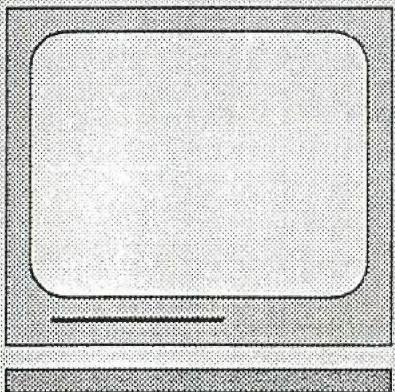
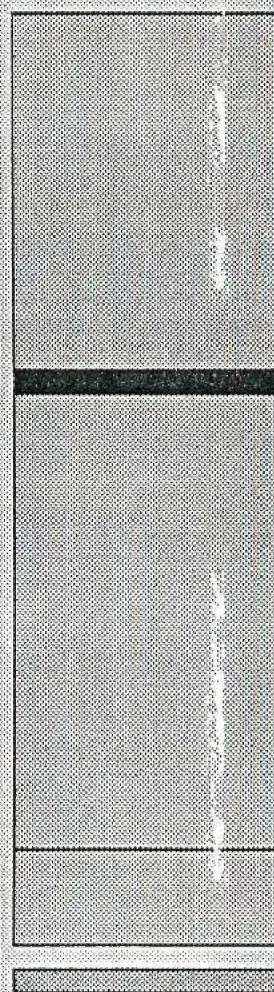
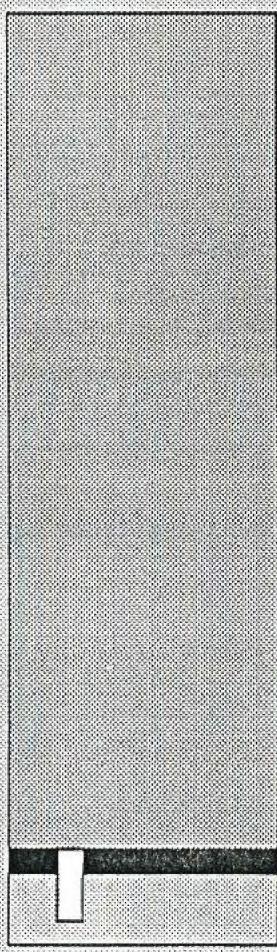


SILVER

DG-100

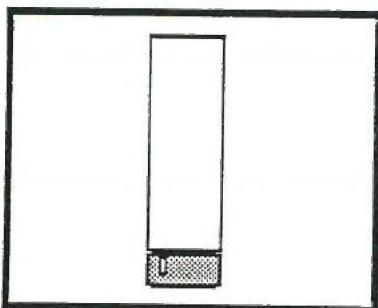


by
DE GRAFE

HARDWARE

SPECIFICATION

SHEETS



SILVER DG-100

Videographic Workstation

Purpose

The SILVER videographic workstation is the heart of the SILVER videographic system

Features

- 7 specialised process.
- 65000 colors simultaneously (4096, each with 16 transparency levels, out of a palette of 16.7 million).
- Maximum resolution of 768 points per line.
- Realtime digitizing in full color.
- 4 mixable video inputs.
- Integrated stereo synthesizer.
- Analog input.
- Genlock input.
- Separate menu and key outputs.
- Direct memory access bus.
- 8 software slots.

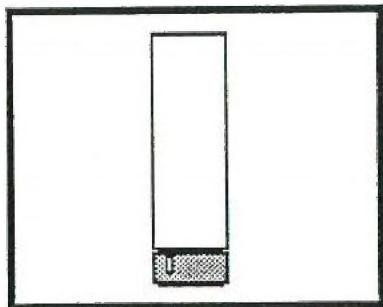
Included

- Keyboard
- Electronic tablet and stylus
- Monitor and power cables
- User manual
- System cartridge
- GRAF 65000 videographic program
- GENCAR character generator

DG-SY1

DG-G65

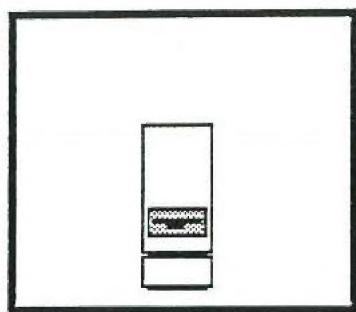
DG-GN1



SILVER + DG-100 A

Videographic computer

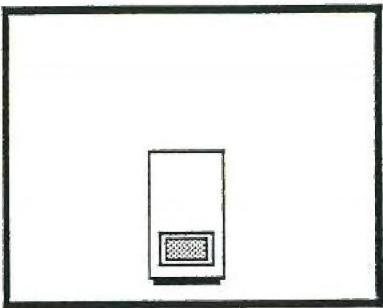
Purpose	The SILVER videographic computer is the heart of the SILVER videographic system
Features	<ul style="list-style-type: none">- 7 specialised processors.- 65000 colors simultaneously (4096, each with 16 transparency levels, out of a palette of 16.7 million.- Maximum resolution will be of 768 points per line.- Realtime digitizing in full color.- 4 mixable video inputs.- Integrated stereo synthesizer.- Analog input.- Genlock input.- Separate menu and key outputs.- Direct memory access bus.- 8 software slots.
Included	<ul style="list-style-type: none">- Keyboard- Electronic tablet and stylus- Monitor and power cables- User manual- System cartridge DG-SY1- GRAF 65000 videographic program DG-G65- GENCAR character generator DG-GN1
SILVER+ (DG-100A)	As above, but includes BUSIGRAF 1 DG21 GRAF + DG20 VIDEOGRAF 1 DG17



Extension + Disk drive DG-150

4 planes

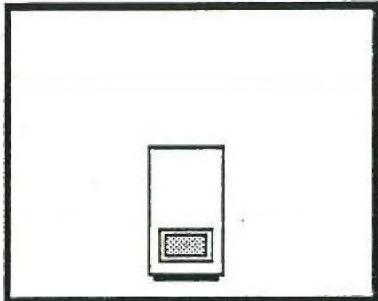
Purpose	Offers 4 picture planes capacity for the SILVER system, as well as a built in 1 megabyte 3 1/2 inch disk drive.
Features	<ul style="list-style-type: none">- 3 extra memory planes. Many of the functions offered by different software options require the additional memory capacity in order to operate. The LOGOGRAF cartridge (for example) offers character generation facilities using fonts stored on cartridge (non alterable) as a basic option, but the addition of this unit will permit the creation of your own character fonts, which can be saved to disk.- Built in 3 1/2 disk drive unit offering the possibility to store images created with GRAF 6500 etc. as well as character fonts created using LOGOGRAF- 8 additional software cartridge slots.
Included	<ul style="list-style-type: none">- Cable for connection to SILVER- Power cable and multi-socket extension lead- User manual- MEMORY software cartridge DG3 The MEMORY program offers disk management functions as well as memory plane manipulation function for GRAF 65000 (image storage, cut & paste between planes, image mixing etc.)



Encoder DG-120

PAL or NTSC encoder

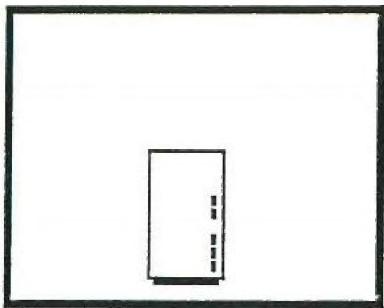
Purpose	PAL or NTSC encoder unit.
Features	<ul style="list-style-type: none">- Codes an input RGB signal, as composite PAL or NTSC. The encoder is necessary for recording from the SILVER to a video cassette recorder requiring a composite signal input.- Includes FDS (desaturation control) for signal processing to obtain an optimum level of coding and saturation.
Inputs	<ul style="list-style-type: none">- RGB
Outputs	<ul style="list-style-type: none">- Pal or NTSC composite video
Included	<ul style="list-style-type: none">- Power supply cable- Video cable- Manual



FADEC DG-110

Variable transparency mixer/decoder

Purpose	Automatic decoding of PAL / SECAM / NTSC 3.58 and 4.43 signals as well as variable transparency mixing.
Features	<ul style="list-style-type: none">- Multistandard decoding. The FADEC automatically recognizes the standard of the signal presented at its input, and indicates that standard on the front panel. It is possible at any time to lock onto a given standard (avoiding the need to redetect the standard in the event of a poor video recording (for example)).- Dissolve between the video input image and the RGB input image (a variable transparency mixing between the two images).- Digital control of the variable transparency. The selection of the 256 transparency levels can be controlled by signals injected at the MIX CONTROL connector.
Inputs	<ul style="list-style-type: none">- Composite video- RGB- Key- Digital mix control
Outputs	<ul style="list-style-type: none">- Composite video- RGB (decoder)- RGB (mixer)- Monitor (RGB)

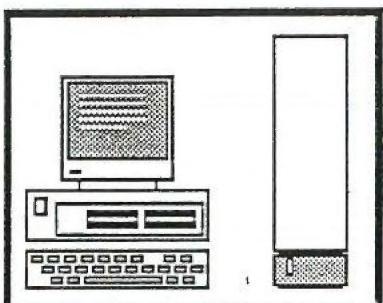


VTC

DG-130 / 135

Video Tape Controller

Purpose	A versatile video tape control unit for frame by frame editing on either SONY or JVC recorders.
Features	<ul style="list-style-type: none">- Transport, read and record editing functions can be commanded from the VTC in liaison with an IBM PC/AT or compatible via the RS232 link.- Alternatively, the EDITING1 software cartridge (optional DG-ED1) may be used to pilot the video recorder (via the VTC) from the SILVER and tablet.- Image search, locate and insertion facilities are provided, as well as tape formatting, time coding, cassette identification etc.
Suitable recorders	<ul style="list-style-type: none">- JVC CR 8250 E- JVC PR 8800 EX- JVC PR 900 E- JVC CR 6250* <p style="margin-left: 200px;">}</p> <p style="margin-left: 200px;">Requires JVC VTC (DG-130)</p> <ul style="list-style-type: none">- Sony VO 5850- Sony VO 5630*- Sony VO 5800*- Sony VO 2631* <p style="margin-left: 200px;">}</p> <p style="margin-left: 200px;">Requires Sony VTC (DG-135)</p> <p>*All functions except editing (recording)</p>
Included	Power supply cable (JVC / VTC only) Video recorder remote control connector cable SILVER connection cable

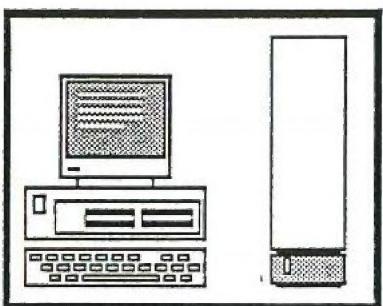


AT link DG-140

SILVER > PCAT liaison

Purpose	Kit for liaison with an IBM* PCAT or compatible.
Features	<ul style="list-style-type: none">- Basic entry points are accessible to developers, for all the SILVER software applications. By using an IBM PCAT or compatible computer, programmers can adapt existing software to specialised needs or write their own applications for the SILVER system.- One of the most useful features of the link is the possibility to store images created on the SILVER using a hard disk installed in the AT. Assuming (say) a hard disk of 20 megabytes, this offers a capacity to save more than 10 times the number of screen images than would be possible using the microfloppy disks in the SILVER extension unit.- Additional functions are available to programmers that would not normally be accessible using the user applications cartridges.
The kit	<ul style="list-style-type: none">- Circuit board for installation in the AT- Cartridge software for installation in the SILVER- Liaison cable- 5 1/4 " floppy disk with communication software- Programmer's manual- Entry points manuals for GRAF 65000 and GENCAR
Note	Entry points manuals are available to programmers on request, for all the software applications in the SILVER range.

* IBM is the registered trade mark of International Business Computers



PC link

DG-145

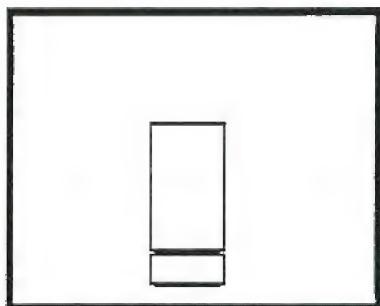
SILVER > PC liaison

Purpose	Kit for liaison with an IBM* PC or compatible.
Features	<ul style="list-style-type: none">- Basic entry points are accessible to developers, for all the SILVER software applications. By using an IBM PC or compatible computer, programmers can adapt existing software to specialised needs or write their own applications for the SILVER system.- One of the most useful features of the link is the possibility to store images created on the SILVER using a hard disk installed in the PC. Assuming (say) a hard disk of 20 megabytes, this offers a capacity to save more than 10 times the number of screen images than would be possible using the microfloppy disks in the SILVER extension unit.- Additional functions are available to programmers that would not normally be accessible using the user applications cartridges.
The kit	<ul style="list-style-type: none">- Circuit board for installation in the PC- Cartridge software for installation in the SILVER- Liaison cable- 5 1/4 " floppy disk with communication software- Programmer's manual- Entry points manuals for GRAF 65000 and GENCAR
Note	Entry points manuals are available to programmers on request, for all the software applications in the SILVER range.

* IBM is the registered trade mark of International Business Computers

**NEW
HARDWARE
SPECIFICATION
SHEETS**

(Available Oct 1987)



Extension DG-155

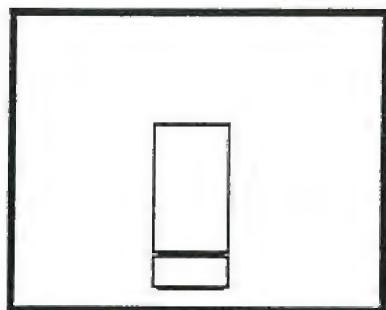
8 Planes extension
and softspace

Purpose	8 additional picture planes capacity for the SILVER system, as well as a built in 16 slots of softspace
Features	<p>8 extra memory planes. The 8 planes extension offers massive memory storage capabilities for storage of images, character fonts, sequences etc.....</p> <p>16 additional slots for application cartridges. The equivalent of a SOFTBOX (DG-112) is incorporated into this unit.</p>
Included	<ul style="list-style-type: none">- Cable for connection to EXTENSION/DISK (DG_155)- User manual
Important	In order for the 8 planes extension / softspace unit to function, you must already have the 4 planes / disk unit connected as part of your system.

(Available Oct 1987)

■ ■ DE GRAFE

(Available Oct 1987)



Softbox DG-112

16 supplementary cartridge slots

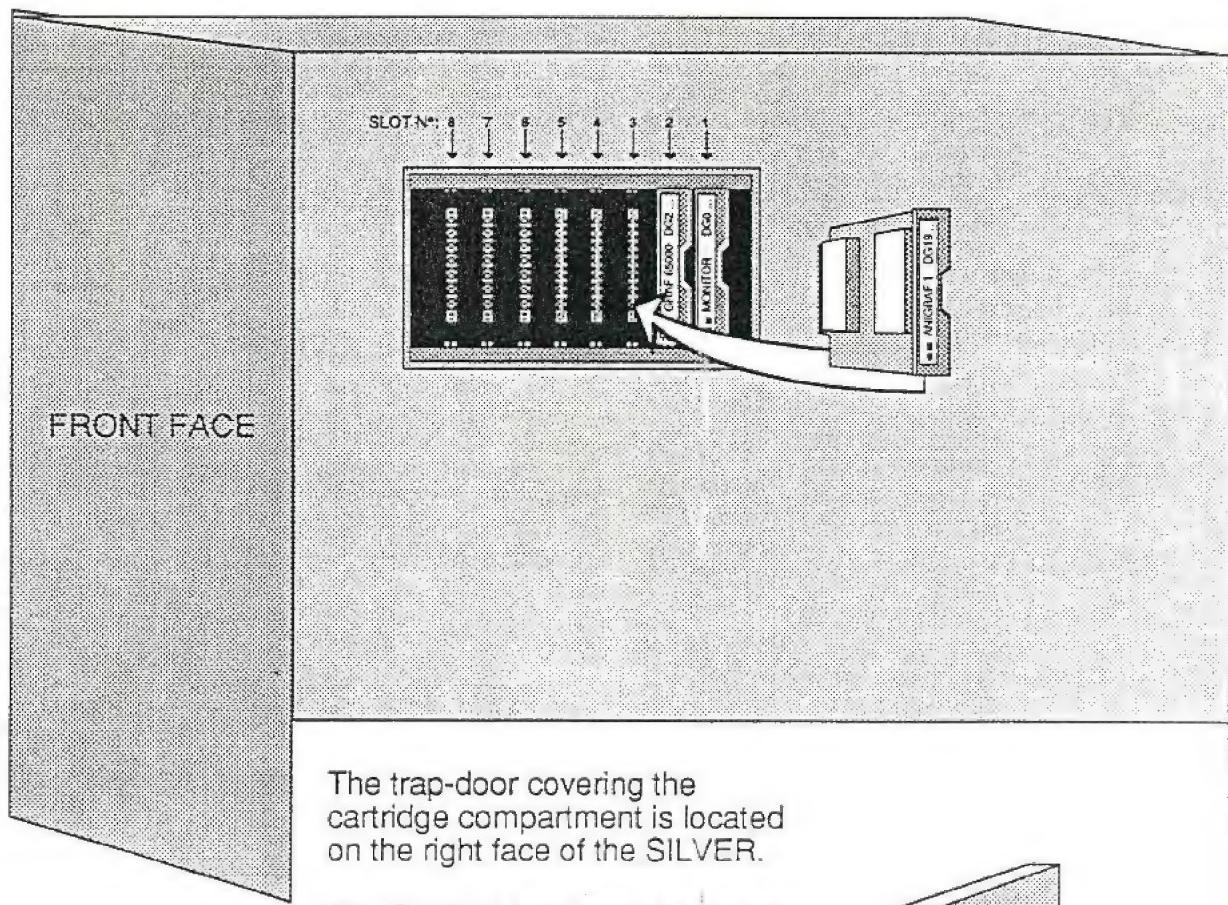
Purpose	Extension unit for housing software cartridges.
Features	<ul style="list-style-type: none">- 16 additional slots for application cartridges.
Included	<ul style="list-style-type: none">- Cable for connection to EXTENSION (DG-150)- User manual
Important	In order for the softbox unit to function, you must already have the 4 planes /disk unit connected as part of your system.

(Available Oct 1987)

■ ■ DE GRAFE

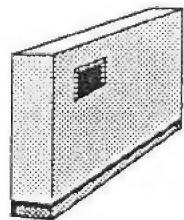
**SOFTWARE
SPECIFICATION
SHEETS**

Software Extensions. (Application cartridges).

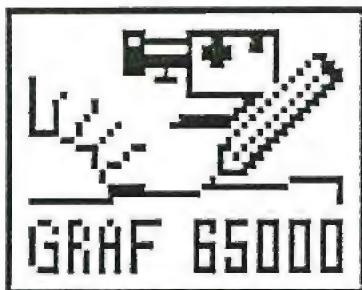


The trap-door covering the cartridge compartment is located on the right face of the SILVER.

The SILVER has 8 cartridge slots (the numbers from 1 to 8 are those referred to during the use of the "LIST" icon from the cartridge menu (see GRAF 65000 manual 1.2-02).



Cartridges can be inserted in any order.



GRAF 65000

Video and graphics application

DG-2

GRAF 65000 (supplied free with the basic SILVER system) comprises a suite of sophisticated Video & Graphic functions aimed at exploiting to the full the extensive possibilities of the SILVER.



Drawing



Freehand



Standard zoom



Airbrush



Smearing brush



Eraser



Layout



Mirrors (vertical)



Digitize window



Mirrors (horizontal)



Freehand copy



Mirrors (both)



Block transfer



Mirrors off



Block copy



Geometric



Circles



Arcs



Squares



Lines



Rectangles



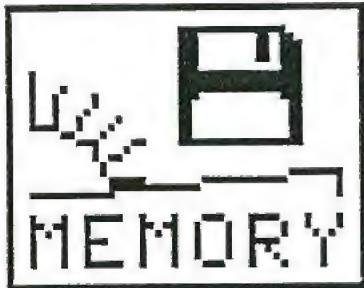
Points

	Color		Select screen color		Fill area
			Color gradation		Clear area

	Video		Full (65000) color digitizing
			Black and white digitize with colorizing
			Compressed (1/4 size) digitizing
		 	Video inlay enable/disable

	Misc.		Clear screen		Cursor color
			Beep ON/OFF		Restart

	Selection of 16 brushes (for all functions)	
 	Antialiasing (smoothing) option on all geometric functions	



MEMORY

Disk & memory planes functions

DG-3

MEMORY is supplied free with the 4-PLANES EXTENSION/DISK (DG-150) and offers disk storage functions as well as functions for management of the memory planes in the SILVER and EXTENSION.

SAVE, LOAD and the MEMORY functions are presented within GRAF 65000 under headings of DISK & MEMORY function types



Disk *



Save image



Disk catalog



Load image



Rename file



Erase disk file



Prepare disk



Memory *



Store image



Swap screen



Restore image



Mix images



UNDO Undo previous action

*These functions require the presence of the Extension/disk (DG-150)



GRAF +

Additional video and graphics

DG-20

GRAF+ offers video and graphic functions to extend the capabilities of GRAF 65000 (and other SILVER applications). The new functions will appear within the existing application's menu display.



Drawing



Flat airbrush (flat transparent coats of color)



Geometric



Flat airbrush (even/transparent) straight lines



Color



Colorizing brush (paints with chrominance)



Blending brush (free hand antialiasing)



Memory*



Memory plane cut and paste function

*(requires presence of EXTENSION/DISK unit)



Video



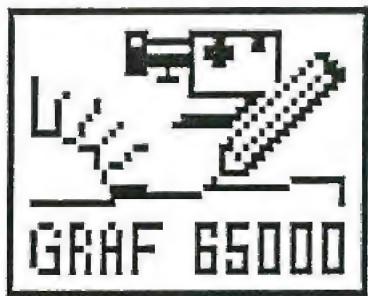
Black & white digitizing with colorization



Miscellany



View (temporarily removes the menu)



GRAF 2

Additional graphics functions 2

DG-26

GRAF 2 offers advanced graphic functions to extend the capabilities of GRAF 65000 (and other SILVER applications such as LOGOGRAF 2). The new functions will appear within the existing application's menus.



Drawing



Antialiased (smooth) freehand line drawing



Multi-function zoom (access to all functions)



Geometric



Cut & paste with rotation of cut-out object



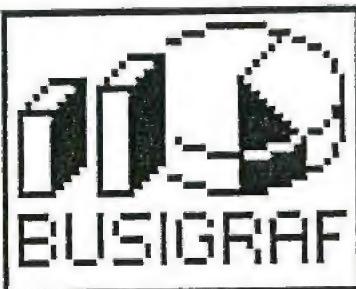
Variable compression and enlargement*

* For transfer and re-sizing of object with option to respect or ignore original horizontal/vertical ratio



* The variable compression and enlargement function is used by LOGOGRAF 2 for automatic re-sizing of individual characters or entire fonts





BUSIGRAF 1

3D business graphics application

DG-21

BUSIGRAF 1 will automatically create 3 dimensional pie and bar graphs from data input using the keyboard. All style and layout options are selected from on screen menus. Full compatibility with the SILVER range of applications means that the graphics can be displayed in 65000 colors and on any type of background including live video inlay.

Titles, subtitles, values, comments etc. can be displayed to accompany the graphics. A large range of character styles, fonts, colors, etc. from GENCAR are available for the titling*



Pie charts



Pie colors



Large pie layouts



Small pie layouts



Bar graphs



Bar spacing



Bar colors



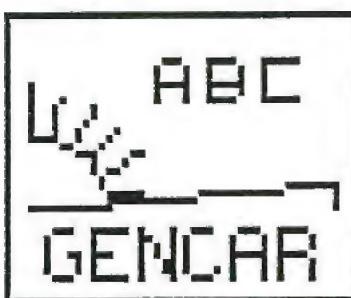
Lighting angle

DATA	Data & text	INPUT	Input data	TITLE	Input title
TEXT		% or absolute		SUBTITLE	Input subtitle
			Style (title.subtitle)	TEXT	Input text
		JAN J F M A M J	Label direction	???	Free comments
		DAY MONTH YEAR	Dates		

Miscellany	GO	Execute graphic	Clear screen
		Restart	
		Gradated background	
	VIDEO ON	Video inlaid in background	

Style	Refer to GENCAR for information on style and text functions*	
--------------	--	----------

*For BUSIGRAF to operate, the GENCAR cartridge must be installed



GENCAR

Character generator application
DG-4

GENCAR (supplied free with the basic SILVER system) comprises a suite character generation functions covering all basic text display needs. Four character fonts are included and a large range of style and color options is available.

GENCAR is fully compatible with the SILVER range of applications.



Text

Text is input using the keyboard, and positioned over the graphic screen image using the tablet.



Style



Character size



Text inclination



Character font



Relief



Shadow



Italics



Shadow direction



Transparence



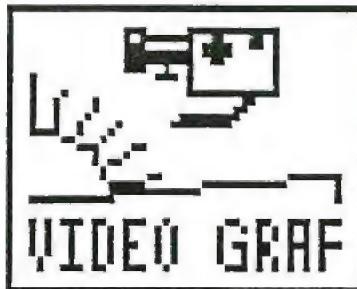
Shadow length



Transparent character background



Opaque character background



VIDEOGRAF 1

Video special effects package

DG-17

VIDEOGRAF 1 is specially designed for professionals in the video creation field, and provides wipes, slides and special effects (mosaic, compressions, windows, etc.) that until now have only been available on more costly and less flexible systems.

These treatments can be performed on still or moving video images, as well as purely graphic images produced using GRAF 65000 or any other application in the SILVER range.



Geometric



Mosaic effects



Compressions



Wipes



Simple wipes

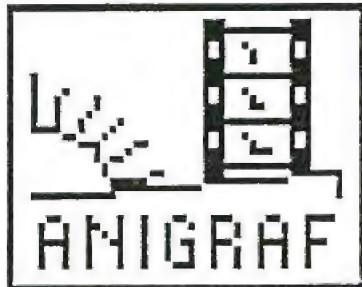


Spiral wipes



Slides





ANIGRAF 1

Animation line test - 65000 colors

DG-19

ANIGRAF 1 offers all the functions needed to produce full color animation line tests, capable of displaying an animated sequence of 16 images occupying 1/16th of the monitor screen area. This can be displayed over a graphic or moving video background. Speed is variable between 5 and 25 frames per second. The source material can come from digitized video images, or images drawn or processed using GRAF 65000 or any other SILVER application. Animation sequences can be saved and loaded to disk or hard disk using GRAF 65000.



Image grab



Digitize an image using a camera or VCR



Position screen relative to digitized image



Storyboard



Copy frame



Insert frame



Swap frame



Clear screen



Delete frame



Clear frame



Execution



Step by step



Animation length



Continuous



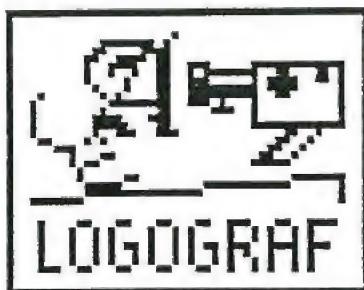
Display position



Speed



Inlay on/off



LOGOGRAF 1

Character generator application
DG-9

LOGOGRAF 1 offers sophisticated character font creation and generation functions. Character sets and logotypes can be grabbed directly from examples on paper, using a video camera*

- Characters are antialiased (smoothed) by 32 transparency levels...
- Characters can be typed directly to the screen using the keyboard...

* The Extension/disk (DG-150) is required for operation of LOGOGRAF 1



Memory



Save font to disk



Clear memory



Load font from disk



Auto save



Restart



Creation



Grab characters



Adjust contrast



Edit character



Cut work area



Assign character



Character frame



Un-delete



Modify character



Text



Type text



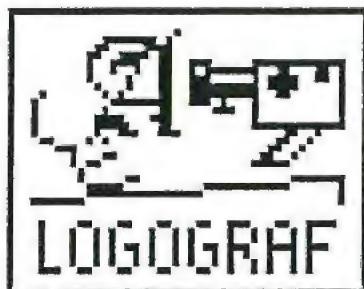
Style options



Character color



Video inlay



LOGOGRAF 2

Advanced character generator

DG-27

LOGOGRAF 2 offers sophisticated and highly advanced character font creation and generation functions. Character sets and logotypes can be grabbed directly from examples on paper, using a video camera*

- Characters are antialiased (smoothed) by 32 transparency levels...
- Full (65000) color characters/logos can be assigned to the fonts...
- A full range of style options and text functions is provided, together with the possibility to resize characters or complete fonts**...
- Additional ready-made character fonts are available on cartridge...



Memory *



SAVE Save font to disk



Clear memory



LOAD Load font from disk



AUTO SAVE Auto save



Creation *



Grab characters



Adjust contrast



B&W or color



Cut work area



Assign character



Character frame



Delete character



Edit character



Un-delete



Undo last edit



Clear screen



Modify character



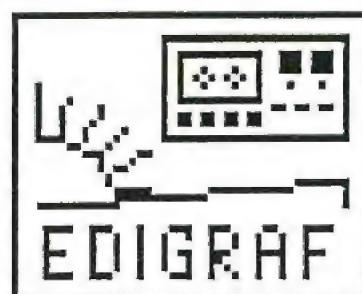
Resize characters**

	Text		X-Y positioning		Input text
			'Phantom' position		Auto-centering

	Style		Palette functions		Italics
			Character color 1		Outline
			Character color 2		Negative
			Relief color		Lighting angle
			Gradation		Shadow depth
			Text inclination		Shadow effect
			Embossed effect		Relief effect
			Normal/opaque background		

	Miscellany		Font information		Undo
			Select font		Restart

- * To make use of the character creation functions, the Extension/disk (DG-150) must be connected to the system. A video camera is also required in order to digitize characters from examples on paper.
- ** Re-sizing of characters can be performed only if GRAF 2 is installed in one of the application slots of the system.



EDIGRAF 1

Video recorder editing software
DG-22

EDIGRAF offers the possibility to control a video cassette recorder remotely, via the SILVER and VTC (video tape controller - DG 130/135*). Frame by frame editing can be performed easily (as well as tape preparation, time coding, frame/sequence search/insertion etc.), controlled directly from the SILVER and monitor screen.



Remote



Play



Fast forward



Record



Rewind



Stop/pause



Record dub



Search



Prepare tape



Image search



Prepare & record



Locate image



Sequence search



Address in play



Editing



Insert images in play or reverse play



Select n° of images



Start image



Perform edit



View sequence

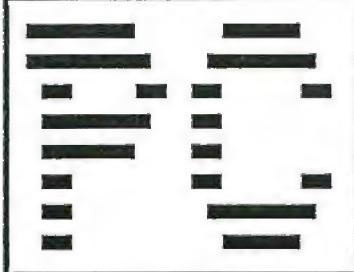
EDIGRAF pilots the video cassette recorder via the SILVER Video Tape Controller (VTC). This unit is available separately, and comes in two different versions covering the Sony and JVC 3/4" range of recorders.

VTC DG-130

{ JVC CR 8250 - all functions including editing
JVC High band - all functions including editing
JVC CR 2650 - all functions except editing

VTC DG-135

{ Sony VO 5850 - all functions including editing
Sony VO 2631 - all functions except editing
Sony VO 5630 - all functions except editing
Sony VO 5800 - all functions except editing



PC/AT link

SILVER ↔ PC/AT dialogue

DG-5

The PC/AT dialogue cartridge is intended for installation in one of the application slots of the SILVER system. The cartridge is supplied as part of the SILVER<>PC link kit (DG-145) or SILVER<>AT link kit (DG-140).

There are two types of usage possible for the link - as a means of access by the SILVER to the PC or AT's hard disk storage, or to access the SILVER using the PC or AT for software development purposes. Also included with the link kit is a software disk for the PC/AT which contains two programs. The type of link that will be established will depend upon which of these programs is run.

Hard disk storage



By running the program DUR.EXE on the PC/AT, the SILVER becomes master and the PC/AT slave (no manipulation being required on the SILVER side). Several new functions are offered for use by the SILVER applications (GRAF 65000 for example) for SAVING, LOADING and DELETING of the PC/AT's hard disk.



Save to hard disk

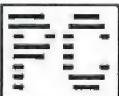


Load from hard disk



Delete from hard disk

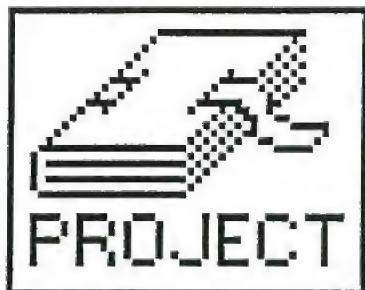
Development



By running the program IBM.EXE on the PC/AT and clicking the "PC" icon on the SILVER, control is given to the PC/AT. Access is now available to all the graphics primitives of SILVER applications. The cartridge adds an new primitive - for drawing of antialiased filled polygons.

**NEW
SOFTWARE
SPECIFICATION
SHEETS**

(Available Sept.1987)



PROJECT 1

Cartridge DG-PJ1

Purpose	Automatic recording in memory, of SILVER's functions.
Features	<ul style="list-style-type: none">- PROJECT offers the possibility to record in memory, a sequence of functions as they are performed on the SILVER.- A list of functions recorded is available to the user, who can then perform insertions, deletions etc... In addition, it is possible to control the time delays between and during the functions.-The recording can then be executed in step by step or continuous motion, to provide superb presentation sequences, making optimum use of the SILVER's available memory.

(Available Sept. 1987)

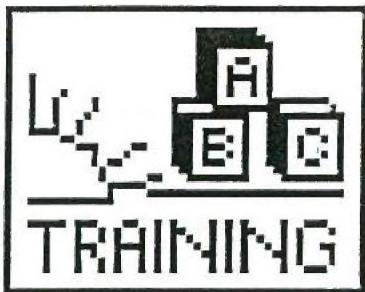


BUSINESS 1

Cartridge BU1

Purpose	3 D Business-graphics Pie charts and bar graphs
Features	<ul style="list-style-type: none">- Handles automatically the drawing of pie-charts and bar graphs- Layout and color management (65000 colors) Input of data using the keyboard (figures & commentary).- Insertion of still or moving video compression (real time), to complement the business graphic.*- Uniform, gradated or transparent background and interactivity with the DE GRAFE software range. Antialiased characters (no steps) for all comments and full control over character styles/colors etc...**
Peripherals required	A compression (*) above is performed by the program GRAF 65000, it is then possible to insert that into the BUSIGRAF 1 image. In order to do this, you will need a camera, video cassette recorder or some other PAL/SECAM video source. This composite video source should be connected to the PAL/SECAM decoder, which in turn is connected to the R.G.B and Sync inputs of the SILVER. If you wish to add titles, comments etc... to your graphics, you will need also the LOGOGRAF cartridge installed in your system (plus fonts). (**) LOGOGRAF offers superb sophisticated typefaces and a vast range of style and layout options.

(Available Sept.1987)



TRAINING 1

Cartridge DG-TR1

Purpose	Animated training charts application.
Features	<ul style="list-style-type: none">- Offers the possibility to set up, by means of a selection of automatic functions, full screen animated educational and training charts and diagrams. - Functions include the creation of background decor and simultaneous moving and synchronizing of objects in the foreground.

(Available Oct. 1987)



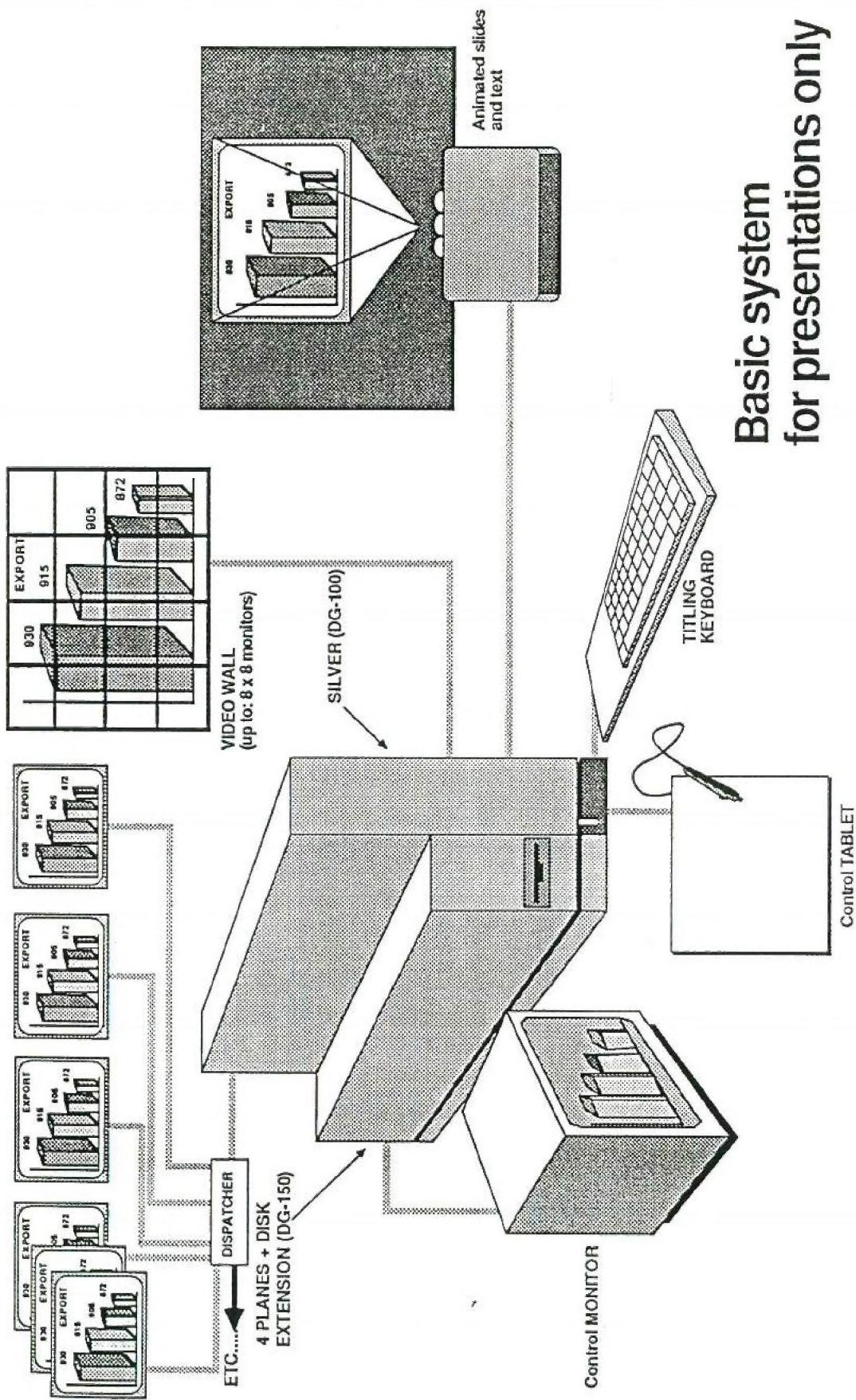
FONT 1

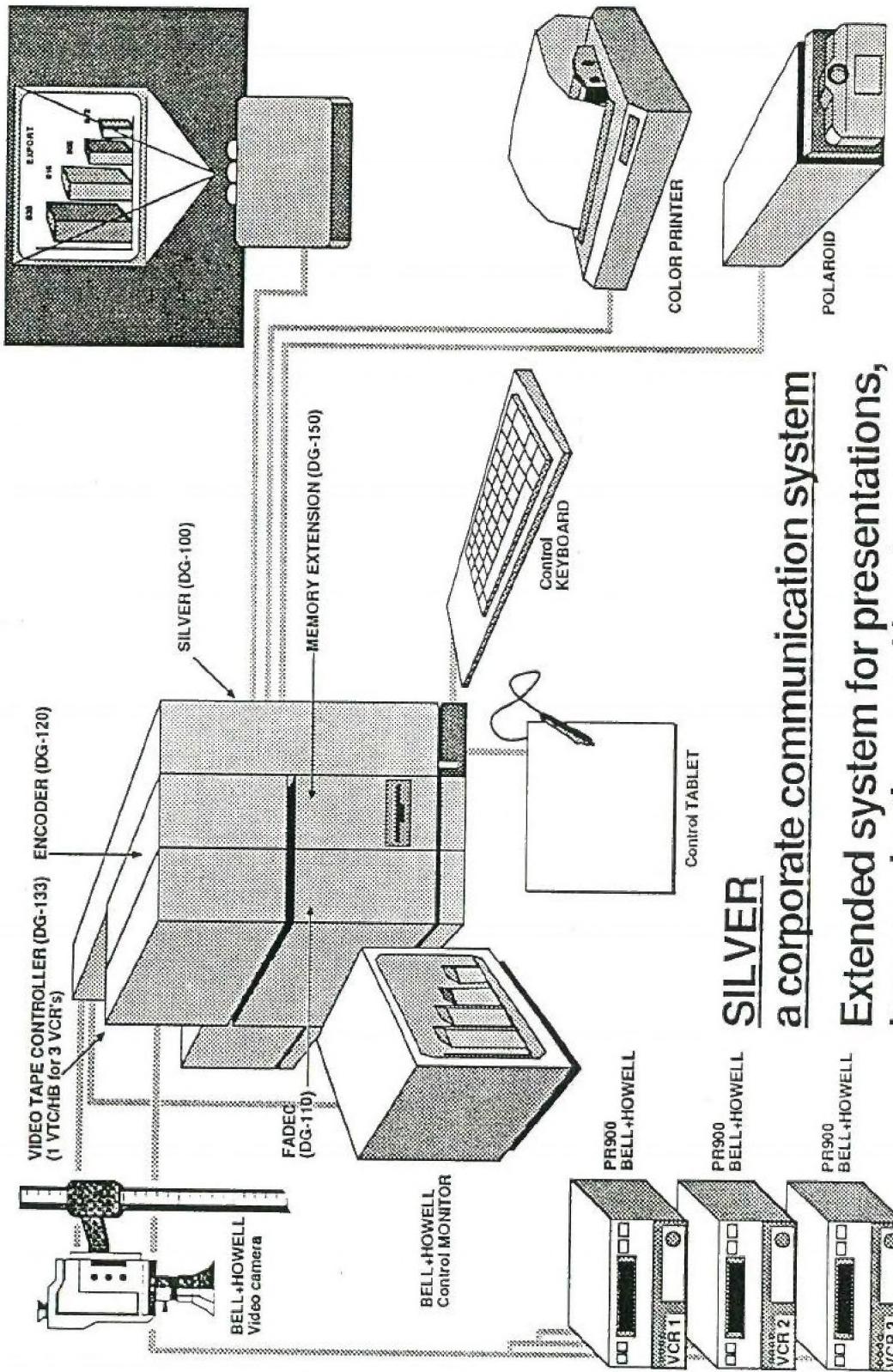
Cartridge DG-F01

Purpose	Ready made character font for use with LOGOGRAF
Features	<ul style="list-style-type: none">- Smoothed (antialiased) characters contained on a software cartridge for installation in the SILVER.- Three different sizes of characters.- No waiting is necessary when selecting fonts on cartridge. Character fonts are changed instantly.- Characters are displayable using the entire range of style options available with LOGOGRAF 1 or LOGOGRAF 1+2.
Note	Many different character fonts may be installed in the SILVER at the same time. Selection is made from within the LOGOGRAF program as to which font to use.

SILVER - a corporate communication system

**Basic system
for presentations only**





SILVER
a corporate communication system
 Extended system for presentations,
 tape productions and hard copy